AMENDMENTS TO THE CLAIMS

1-14. (Cancelled)

15. (New) A fuel cell system comprising:

at least one cell having a cathode gas flow plate and an anode gas flow plate;

a first gas flow channel and a second gas flow channel both provided in at least one of said cathode gas flow plate and said anode gas flow plate of said at least one cell; and

switching devices for switching a connection between said first and second gas flow channels within said at least one of said cathode gas flow plate and said anode gas flow plate from a parallel connection to a series connection, and from a series connection to a parallel connection.

16. (New) The fuel cell system according to claim 15, wherein said first and second gas flow channels are provided in said cathode gas flow plate.

17. (New) The fuel cell system according to claim 15, wherein said first and second gas flow channels are provided in said anode gas flow plate.

18. (New) The fuel cell system according to claim 15, further comprising:

a gas manifold connected to said first gas flow channel and said second gas flow channel.

19. (New) The fuel cell system according to claim 15, wherein said at least one cell includes a gas diffusion backing, and wherein the fuel cell system further includes a gas flow path for allowing a gas to flow between said first gas flow channel and said second gas flow channel without contacting said gas diffusion backing.

20. (New) The fuel cell system according to claim 15, 16, 17, 18 or 19, further comprising:

a first pipe having a first one of said switching devices;

a second pipe having a second one of said switching devices; and

a third pipe having a third one of said switching devices, wherein said first pipe is connected to an end of said first gas flow channel and a first end of said second gas flow channel, and wherein said second and third pipes are connected to a second end of said second gas flow channel.

21. (New) The fuel cell system according to claim 15, 16, 17, 18 or 19, further comprising:

a first pipe having a first one of said switching devices; and

a second pipe having a second one of said switching devices, wherein said first pipe is connected to an end of said first gas flow channel, said second pipe is connected to a first end of said second gas flow channel, and wherein a portion of said first pipe between said first one of said switching devices and said end of said first gas flow channel is connected to a portion of said second pipe between said second one of said switching devices and said first end of said second gas flow channel by a third one of said switching devices.

22. (New) The fuel cell system according to claim 15, 16, 17, 18 or 19, wherein at least one of said switching devices is a valve.

23. (New) The fuel cell system according to claim 15, 16, 17, 18 or 19, wherein said fuel cell system is a polymer electrolyte fuel cell system.

24. (New) The fuel cell system according to claim 15, 16, 17, 18 or 19, wherein said fuel cell system comprises a polymer electrolyte fuel cell stack comprising said at least one cell.